[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

[Docket No. PRM-50-118; NRC-2019-0071]

Measurement Standards Used at U.S. Nuclear Power Plants

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for rulemaking; denial.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is denying a petition for rulemaking, submitted by Mr. Michael Taylor (the petitioner), dated December 3, 2018. The petition was docketed by the NRC on March 4, 2019, and was assigned Docket No. PRM-50-118. The petitioner requested that the NRC amend its regulations regarding the measurement standards used at U.S. nuclear power plants. The NRC is denying the petition because the NRC's current regulations and oversight activities provide reasonable assurance of adequate protection of public health and safety.

DATES: The docket for PRM-50-118 is closed on [**INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER***].

ADDRESSES: Please refer to Docket ID NRC-2019-0071 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to https://www.regulations.gov and search for Docket ID NRC-2019-0071. Address questions about NRC dockets to Dawn Forder; telephone: 301-415-3407; email: Dawn.Forder@nrc.gov. For technical

questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that it is mentioned in the SUPPLEMENTARY INFORMATION section.
- **Attention:** The Public Document Room (PDR), where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via email at PDR.Resource@nrc.gov or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Solomon Sahle, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-3781, email: Solomon.Sahle@nrc.gov, or Greg Galletti, Office of Nuclear Reactor Regulation, telephone: 301-415-1831, email: Greg.Galletti@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. The Petition

Section 2.802 of title 10 of the *Code of Federal Regulations* (10 CFR), "Petition for rulemaking—requirements for filing," provides an opportunity for any interested

person to petition the Commission to issue, amend, or rescind any regulation. On December 3, 2018, the NRC received a petition for rulemaking (PRM) from Mr. Michael Taylor, as amended on July 22, 2019 (ADAMS Accession Nos. ML19074A303 and ML19199A014, respectively). The petitioner requested that the NRC amend its regulations to require that all metrology and calibration laboratories at nuclear power plants become certified by accrediting organizations that require the use of certain measurement standards. The petitioner also requested that the NRC require training of all personnel and their management that make measurements at nuclear power plants, to ensure a clear understanding of the effects of measurement standards.

The petitioner is concerned that U.S. nuclear power plants are not required to use or have internal metrology or calibration laboratories that are certified under an accrediting organization such as the American Association for Laboratory Accreditation, National Voluntary Laboratory Accreditation Program, or similar accrediting body, as a part of normal and required operations. The petitioner states that, because of this lack of accreditation, certain important factors are not currently considered in measurements conducted at nuclear power plants, including the ratio of measurement standards to units under test. The petitioner contends that this leads to an unresolved safety issue for Quality (safety-related) measurements in particular. The petitioner also states that existing internal quality assurance and documents and standards currently in use for inspections and audits do not adequately address this concern.

II. Public Comments on the Petition

A. Overview of Public Comments

The NRC published the notice of receipt and request for public comment in the *Federal Register* on May 15, 2019 (84 FR 21727). The public comment period closed on July 29, 2019. The NRC received a total of five public comments. Three comments expressed support for the petition, one did not clearly support or oppose the petition, and

one (from the petitioner) provided grammatical corrections and minor clarifications to the petition.

The NRC reviewed and considered the public comments received in making its decision to deny the PRM. The NRC response follows a short summary of each comment.

B. NRC Responses to Public Comments

Comment: One comment, from an anonymous individual, agrees with the petitioner that the current regulations leave margin for error and that additional regulations are necessary.

NRC Response: The NRC disagrees with this comment. The NRC performed an independent search of all licensee event reports and greater-than-green inspection findings since 2015 and did not identify any examples of safety issues caused by the lack of laboratory certification requirements. In addition, a licensee's calibration program must meet the requirements of criterion XII, "Control of Measuring and Test Equipment," of appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities." Furthermore, a licensee's compliance with the requirements of appendix B to 10 CFR part 50 is subject to inspection by the NRC. As such, the NRC has reasonable assurance that the existing regulations provide adequate protection of public health and safety.

Comment: A comment from an anonymous individual stated that current internal labs in the utility industry should be required to go through the same requirements that external calibration facilities must go through when calibrating and testing equipment for nuclear plants. According to this comment, it is not economically fair for the external calibration labs to pay for and go through the rigorous audits and try to compete for business when internal laboratories are not required to pay for this expensive certification. This

comment suggests that this petition puts every calibration business on an equal playing field and would ensure uniform, basic knowledge and skills prior to employment and continuing education each year after to satisfy certification renewal.

NRC Response: The NRC disagrees with this comment. Training requirements for nuclear power plant personnel, including calibration technicians, are covered under criterion II, “Quality Assurance Program,” of appendix B to 10 CFR part 50, “Domestic Licensing of Production and Utilization Facilities.” Meeting these requirements provides reasonable assurance that the calibration technicians will have the education, training, knowledge, and skills necessary to adequately perform their responsibilities. The economic considerations for external calibration activity facilities are outside the scope of NRC’s rulemaking determination. To the extent that a nuclear power plant licensee chooses to use an external calibration facility, the licensee must ensure that the calibration facility meets appendix B requirements.

Comment: A comment from an anonymous individual stated that any entity such as the Tennessee Valley Authority's Central Lab Calibration Services should be accredited. According to this comment, just because the Tennessee Valley Authority is a federal agency does not mean it should not have to adhere to the rules of all the other calibration services.

NRC Response: The NRC disagrees with this comment. When performing safety-related calibration services for nuclear power plants, Tennessee Valley Authority’s Central Lab Calibration Services must meet the requirements of criterion II of appendix B to 10 CFR part 50. Meeting this regulation provides reasonable assurance of adequate protection of public health and safety.

Comment: A comment from James Anderson, a private citizen, requested that the NRC not reduce time or money spent on nuclear power plants.

NRC Response: The NRC interprets this comment to request that the NRC not reduce its oversight or resources spent on the regulation of nuclear power plants. The NRC considers the comment to be out-of-scope of this petition.

Comment: The petitioner, Michael Taylor, submitted a document providing revisions to the PRM, including grammatical corrections and a few minor clarifications of the original petition.

NRC Response: The NRC considered the revised PRM submitted in this comment.

III. Reasons for Denial

The NRC is denying the petition because the petition does not raise a significant safety or security concern that would warrant the requested changes to the NRC's regulations. To reach this determination, the staff evaluated the merits of the petition, public comments received, the immediacy of any safety concerns raised by the petition, and the NRC's relevant past decisions and current policies. Specifically, staff considered existing NRC requirements for the control of measuring and test equipment. Although the NRC does not require nuclear power plant laboratories to be certified by accrediting organizations, their programs for safety-related measuring and test equipment calibration must meet the requirements in 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities," appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," criterion XII, "Control of Measuring and Test Equipment," and their programs are subject to NRC inspection. The NRC inspections provide additional assurance that licensees are adequately implementing the requirements of criterion XII of appendix B to 10 CFR part 50 to measure and test equipment programs through direct inspection of calibration and

testing activities. These direct inspections ensure that measurement calculations are being adequately performed.

Any safety-related calibrations or measurements that are performed at metrology laboratories utilized by nuclear power plants would fall under these requirements. The requirements for the training of nuclear power plant personnel performing safety-related activities are covered by criterion II, “Quality Assurance Program,” of appendix B to 10 CFR part 50. Any personnel performing safety-related calibrations in an onsite laboratory or at a metrology laboratory utilized by nuclear power plants would fall under these requirements.

In addition, the NRC conducted an independent search of all license event reports and greater-than-green inspection findings from 2015 onward and did not identify any examples of safety issues caused by improper calibrations of measurement and test equipment at nuclear power plant internal laboratories or by the lack of laboratory certification requirements.

In summary, the NRC is denying the petition because the petition does not raise a significant safety or security concern. The requested amendments to NRC regulations are not necessary because existing NRC regulations and inspection procedures provide reasonable assurance of adequate protection of public health and safety.

IV. Conclusion

For the reasons cited in this document, the NRC is denying PRM-50-118. The NRC has concluded that its existing regulations provide reasonable assurance of adequate protection of public health and safety.

Dated March 24, 2021.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,
Secretary of the Commission.

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